United States
Department of
Agriculture

**Animal and
Plant Health
Inspection
Service**

**National
Wildlife
Research
Center**

Wildlife Services Seeking Solutions Through Research

Management of Blackbird Damage to Rice

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National Wildlife Research Center Scientists Address Blackbird Damage to Rice

Wildlife Services' (WS) National Wildlife Research Center (NWRC) is the only Federal research facility devoted exclusively to resolving conflicts created by the interaction of wildlife and people through the development of effective, selective, and acceptable methods, tools, and techniques.

Blackbirds, specifically red-winged blackbirds, common grackles, and brown headed cowbirds, cause extensive damage to newly planted rice and ripening rice. The blackbird-rice problem has generated much interest from states such as Louisiana, Texas, California, Arkansas, Mississippi and Missouri. Considerable public interest now exists to find better management methods to reduce damage caused by blackbirds.

This project focuses on reducing bird damage to rice and improving profitability to growers. This will be accomplished by developing new or improved management techniques and strategies, while expanding partnerships between rice producers, rice commodity groups, rice research boards, universities, and local, state and federal agencies. Specific research needs that are being addressed include: current blackbird population status in southern rice-growing states, impacts of birds on the rice crop, evaluation and development of a bird repellent for use on rice, and development of new strategies and/or tools to manage bird damage to rice.

Groups Affected By This Problem:

Rice producers
Consumers of rice products
Processors, manufacturers, suppliers and sellers of rice products
Other crop farmers

Applying Science and Expertise to Wildlife Challenges

Blackbird Population Modeling—A database of current information about the number, size, location, and species composition of winter blackbird roosts in the southern United States, as well as the population status, movements, and roosting locations of blackbirds and waterbirds, is resulting in the formulation of region-specific population management plans for blackbirds and waterbirds in various rice growing regions (e.g., Louisiana, Arkansas, Texas) of the United States.

Economic Assessment of Damage—A survey of bird damage in the major rice producing states of Louisiana, Arkansas, Texas, California, Missouri, and Mississippi is being conducted that will define the extent of the damage; clarify economic losses associated with bird depredations; assess costs associated with reducing bird depredations; and determine the direction, control and research should take in the future.

Chemical Repellents—NWRC scientists are collecting data to identify, develop, and evaluate chemical repellents for reducing bird damage to newly planted and ripening rice. This data will support new or amended labels for registration of bird repellents to protect seeded and headed rice.

DRC-1339 Baiting—Research is continuing to determine the efficacy of the WS' blackbird/DRC-1339 baiting program in Louisiana and Texas, to develop improved and safer baiting application techniques, and to determine associated nontarget hazards. New strategies and/or tools for managing blackbird and waterbird damage to newly-planted and ripening rice are being developed to assist rice producers.

Major Research Accomplishments:

WS evaluated efficacy of an anthraquinone-based blackbird repellent for use on rice seed and on maturing panicles to reduce blackbird damage to ripening rice

WS evaluated alternative baiting strategies for effective and safe delivery of DRC-1339 toxicant for control of depredating blackbird populations related to their damage to rice

WS determined residue levels of DRC-1339 in soil and plants following application of bait for blackbird control

WS documented consumption of newly planted rice by species other than blackbirds to evaluate nontarget hazards

Selected Publications:

Avery, M.L., E.A. Tillman, J.S. Humphrey, J.L. Cummings, D.L. York and J.E. Davis, Jr. 2000. Evaluation of Overspraying as an Alternative to Seed Treatment for Application of Flight Control Bird Repellent to Newly Planted Rice. *Crop Protection* 19:225-230.

Avery, M.L., D.A. Whisson and D.B. Marcum. 2000. Responses of Blackbirds to Mature Wild Rice Treated with Flight Control Bird Repellent. Proceedings of 19th Vertebrate Pest Conference, March 6-9, 2000, San Diego, CA. pp. 26-30.